DOCUMENT RESUME

ED 426 940 SO 029 862

AUTHOR	Shapiro, David; Tambashe, B. Oleko
TITLE	Ethnicity, Education, and Fertility Transition in Kinshasa, Congo. Working Paper 2-97-1. Revised.
INSTITUTION	Pennsylvania State Univ., University Park. Dept. of Economics.
SPONS AGENCY	Spencer Foundation, Chicago, IL.; Andrew W. Mellon Foundation, New York, NY.; Rockefeller Foundation, New York, NY.; Hewlett Foundation, Inc., Garden City, NY.
PUB DATE	1998-07-00
NOTE	28p.; Paper presented at the International Union for the Scientific Study of Population Seminar on Reproductive Change in Sub-Saharan Africa (Nairobi, Kenya, November 2-4, 1998). For related document, see SO 029 863.
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	Access to Education; *Birth Rate; Cultural Context; *Educational Attainment; Elementary Secondary Education; *Ethnicity; *Females; Foreign Countries; Population Trends; Surveys; Womens Education
IDENTIFIERS	*Congo (Kinshasa); Ethnic Differences; *Fertility

ABSTRACT

Substantial ethnic differences in fertility were documented in the Congo in the mid-1950s. These differences, apparent as well among women residing in Kinshasa, the capital, were linked to variations across ethnic groups in the incidence of venereal diseases and sterility. By the mid-1970s ethnic differences in fertility had diminished but were still present. Using a 1990 survey of more than 2,400 reproductive-age women, a study revisited fertility differentials among 6 broad ethnic groups that are well represented in the city. Significant differences by ethnic group remain, but these differences appear to be small compared to those that prevailed in the 1950s. At the same time, substantial fertility differentials by educational attainment have emerged, particularly at the middle and higher secondary and university levels. While ethnicity remains as a significant influence on fertility behavior, educational attainment has become a key factor associated with larger fertility differences in Kinshasa. During the past 40 years, increased access of women to schooling especially secondary education has been associated with a decline in fertility in Kinshasa. Distinctly lower fertility of relatively well-educated women is a phenomenon increasingly evident in a number of African countries. Appended is information on ethnic groups in Kinshasa, accompanied by a map of cultural regions of the Congo and 2 tables of data. Contains 5 tables of data, 15 notes, and 22 references. (Author/BT)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 426 940

Ethnicity, Education, and Fertility Transition in Kinshasa, Congo

David Shapiro
The Pennsylvania State University

B. Oleko Tambashe
Tulane University

July 1998
(revised and retitled)

Working Paper #2-97-1

SO 029 862

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

David Shapiro

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

✓ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy

BEST COPY AVAILABLE

Ethnicity, Education, and Fertility Transition in Kinshasa, Congo*

David Shapiro
Department of Economics, Women's Studies Program, and
Population Research Institute
The Pennsylvania State University
416 Kern Graduate Building
University Park, PA 16802
dshapiro@psu.edu

and

B. Oleko Tambashe
Department of International Health and Development
School of Public Health and Tropical Medicine
Tulane University
1440 Canal Street, Suite 2200
New Orleans, LA 70112-2737
otambas1@mailhost.tcs.tulane.edu

July, 1998

* Paper prepared for presentation at the International Union for the Scientific Study of Population Seminar on Reproductive Change in Sub-Saharan Africa, to be held November 2-4, 1998 in Nairobi, Kenya. Support from the Spencer Foundation and from a Mellon Foundation grant to the Population Research Institute at The Pennsylvania State University greatly facilitated completion of this paper. Support from The Rockefeller Foundation, the Fulbright Scholar Program, and the Hewlett Foundation is also gratefully acknowledged. Data analyses were possible thanks to assistance from staff of the Population Research Institute's Computer Core, and from Emile Berckmans at the Belgian Archives for the Social Sciences at the Catholic University of Louvain. Helpful comments on an earlier version of the paper were received from Dominique Tabutin and from seminar participants at the Institut National d'Etudes Démographiques in Paris. Responsibility for the contents of this paper rests solely with the authors.

Ethnicity, Education, and Fertility Transition in Kinshasa, Congo

David Shapiro and B. Oleko Tambashe

Abstract

Substantial ethnic differences in fertility were documented in the Congo in the mid-1950s. These differences, apparent as well among women residing in Kinshasa, the capital, were linked to variations across ethnic groups in the incidence of venereal diseases and sterility. By the mid-1970s, ethnic differences in fertility had diminished, but were still present.

Using a 1990 survey of more than 2,400 reproductive-age women, this paper revisits fertility differentials among six broad ethnic groups that are well-represented in the city. Significant differences by ethnic group remain, but these differences appear to be small compared to those that prevailed in the 1950s. At the same time, substantial fertility differentials by educational attainment have emerged, particularly at the middle and higher secondary and university levels. While ethnicity remains as a significant influence on fertility behaviour, educational attainment has become a key factor associated with larger fertility differences in Kinshasa.

The changes that occurred between 1955 and 1990 in ethnic fertility differentials took place within a context of increasing educational attainment of women. During the past 40 years, increased access of women to schooling, and especially secondary education, has been associated with a decline in fertility in Kinshasa.

Distinctly lower fertility of relatively well-educated women is a phenomenon increasingly evident in a number of African countries. Such women appear to be in the forefront of the emerging African fertility transition. From this perspective, the supplanting of ethnicity by education as a key factor associated with sizable fertility differences that we have documented for Kinshasa most likely reflects what is occurring elsewhere in sub-Saharan Africa as well.

Introduction

Ethnic differences in fertility behaviour have been documented in the Democratic Republic of Congo since the mid-1950s (Gouvernement Central de la République du Congo 1961; Romaniuk 1967; Romaniuk 1968). These differences were apparent as well among women from different ethnic groups residing in Kinshasa, the capital, and they were closely linked to variations across ethnic groups in the incidence of venereal diseases and hence infertility (Romaniuk 1967; Romaniuk 1968). By the mid-1970s, ethnic differences in fertility had diminished somewhat, but were still present (Houyoux and Kinavwuidi 1977; Sala-Diakanda 1980; Tabutin 1982).

This paper updates the evidence on fertility differentials by ethnic group in Kinshasa, using a 1990 survey of more than 2,400 women of reproductive age (Tambashe and Shapiro 1991).[1] The changes that occurred between 1955 and 1990 in ethnic fertility differentials took place within a context of increasing educational attainment of women. Indeed, during the latter half of the 20th century, increased access to schooling and most notably to secondary education has been associated with a distinct decline in fertility in Kinshasa (Shapiro 1996). We examine the impact of that increased schooling on fertility differentials by ethnic group. More specifically, we argue that educational attainment has replaced ethnicity as a key determinant of fertility differences among women.

At the same time, there remain a substantial number of differences by ethnic group in key early fertility-related life course transitions (Tambashe and Shapiro 1996) and in the proximate determinants of fertility (Shapiro and Tambashe 1997a). However, these significant differences across groups often serve to offset one another, resulting for the most part in only small differences by ethnicity in observed childbearing behaviour, other things (e.g., age, education,...) being equal (Shapiro and Tambashe 1997a).

The paper begins with a review of previous evidence on ethnic fertility differentials in Kinshasa and in the Congo, based on large-scale surveys carried out in 1955 (Congo Belge 1957a; Congo Belge 1957b) and 1975 (Houyoux and Kinavwuidi 1977). For the latter year, access to the original data allows us to analyze both gross and net differences by ethnic group -- i.e., the actual differences and those existing after controlling for education and other relevant factors.

The examination of the 1975 data is followed by a parallel analysis of gross and net differences in fertility by ethnic group, using our 1990 data set. Comparison of these results, covering a period when women's education increased significantly with respect to its implications for fertility behaviour, allows us to determine the impact of schooling on fertility differentials by ethnic group. We then focus on changes over time in women's educational attainment, and the relationship between education and ethnicity. Finally, we describe results of analyses of the 1990

---

[1]The sample was drawn after stratifying the population by three broad socioeconomic levels and by sector of employment (modern vs. all other women). We heavily oversampled women in the modern sector, and hence have used sample weights in our analyses. For more on the data collection and the data set, see Tambashe and Shapiro (1991).

data that look at differences by ethnic group in the proximate determinants of fertility (age at marriage, contraception, abortion, breastfeeding, and postpartum abstinence), and how those differences contribute to the observed differentials in childbearing.

Our focus is on six broad ethnic groups that are well-represented in Kinshasa and that have constituted a growing share of the city's population over time.[2] The groups studied in this paper include the Bakongo, from Bas-Congo province largely to the south and west of the city (who are subdivided into two groups, based on their geographic location within the province); those from Bandundu province (primarily from the Kwilu and Kwango districts) to the east of the city; and three groups originally from more distant parts of the country: the Mongo and Ubangi groups which for the most part come from Equateur province in the north, and the Luba and related group which is primarily from the Kasai provinces in the central part of the country.[3]

The largest of these groups, in terms of representation in the population as of 1990, is the Kwilu-Kwango group, with 37 percent of our (weighted) sample of women aged 15-49. Bakongo women from south of the Congo River (an area which, like Kwilu-Kwango, is immediately proximate to Kinshasa) account for 22 percent of the sample, and the Bakongo women from north of the Congo River (primarily from the western part of Bas-Congo province farther from the city) represent another 8 percent. The Mongo, Ubangi, and Luba groups constitute 7, 8, and 11 percent, respectively. These six groups thus represent approximately 93 percent of the city's population of women aged 15-49.

Previous Evidence on Ethnic Fertility Differentials

Romaniuk's (1967; 1968) comprehensive analyses of the data from the survey covering the entire country in the mid-1950s documented what he called 'a surprising regional variation in levels of fertility -- estimated crude birth rates by district [among the 26 districts making up what was then the Belgian Congo] that range from about 25 to about 60' (Romaniuk 1968, 313). He noted that the regional and subregional differences in fertility corresponded for the most part to areas of residence of different ethnic groups (Romaniuk 1967, 118).

The low levels of fertility, found particularly in northern regions of the country, were typically associated with a high prevalence of childlessness in districts that also were often characterized by a high incidence of venereal diseases (Romaniuk 1967, ch. 10). Romaniuk cited the Mongo

---

[2]See the Appendix for details on how these groups were constructed and on their composition.

[3]It should be emphasized that the six groups that we examine are in general rather broad, with each one encompassing a number of smaller ethnic groups or tribes. Hence, for certain kinds of behaviours there may well be considerable within-group heterogeneity, whether or not there are any readily observable differences across groups.

people of Equateur province, among others, as a group suffering from a high frequency of sterility (1968, 332), and in his chapter on regional and ethnic variations in fertility (1967, ch. 3) he mentioned not only the Mongo but also the Tetela (a major tribe in the broader Mongo group) and the Ngombe (a principal tribe of the Ubangi group) as among the low-fertility ethnic groups.

The ethnic differences in fertility found in the rural areas of the country were reflected also among women residing in Kinshasa (known then as Leopoldville).[4] The survey results for the city yielded an overall general fertility rate of 240 (Congo Belge 1957a, Table 18). However, as is evident from the rates for 1955 shown in Table 1, there was substantial variation around this average among women from the six broad groups examined here. The Ubangi and Mongo women had especially low fertility, with general fertility rates that were only 60 percent and 76 percent of the city average, respectively.[5] Bakongo women had above-average fertility, by almost 10 percent for those from the South group and by 37 percent for those from the North group. At that time, when colonial regulations restricted migration to Leopoldville, the largest group by far came from the Bakongo South area, closest and most accessible to the city.

By the mid-1970s, when a subsequent large-scale demographic survey was conducted in Kinshasa and elsewhere in the western part of the country, these differences in fertility by ethnic group had diminished considerably. Sala-Diakanda's fertility estimates for the groups in their rural milieus (1980, Table 24, 146) indicate that, whether one looks at general fertility rates or total fertility rates, the Bakongo women remained with the highest levels of fertility.[6] At the same time, however, the Mongo women no longer had substantially lower fertility. Although they had the lowest levels, their fertility was only slightly below that of the Kwilu-Kwango and Lulua women (the Lulua being an important component of the broader Luba and related group).

General fertility rates calculated from the 1975 Kinshasa survey data for the six broad ethnic groups are shown in the second column of data in Table 1. The overall level was essentially unchanged from that of 1955, but fertility of the two Bakongo groups had declined while that of the other four groups had increased. Differences by ethnic group are evident: the Luba and Kwilu-Kwango women had the highest fertility, while the Mongo and Ubangi women had the

---

[4]"The ethnic fertility differentials that are found in the rural areas are found as well in urban areas" (translated from Romaniuk 1967, 120).

[5]Within the broad Mongo ethnic group, half of the women were designated Mongo by the more detailed coding of individual tribes. The general fertility rate for these women was 152, or 63 percent of the city average.

[6]Sala-Diakanda (1980) used a more detailed classification scheme than the one we have used here, with ten categories representing women from five of our six groups (he did not have a category corresponding to our Ubangi group). This summary characterizes his results in terms of the groups used in this paper.

lowest fertility. However, it is clear that the magnitude of the differences across ethnic groups had diminished substantially. The lowest general fertility rate for 1970-74 (for Ubangi women) was over 90 percent of the value of the weighted average of the six groups (243), while the highest rate (for Luba women) was only 10 percent above the average.

A slightly different perspective on the ethnic differences in fertility in Kinshasa in 1975 is provided by the first equation in Table 2. This shows a regression equation in which the number of children ever born is regressed on age, age squared, and dummy variables distinguishing among the six different ethnic groups that are the focus of our analyses.[7] Controlling for age, the fertility of Bakongo women was no different from that of Kwilu-Kwango women.[8] Mongo and Ubangi women had significantly lower fertility than the other groups, by roughly 4 to 6 percent of the mean level. Luba women had the highest level of fertility once age is taken into consideration, the difference representing 7 percent of the mean.

Overall, whether one looks at general fertility rates or the number of children ever born controlling for age, there were differences by ethnic group in 1975, but they appear to be substantially smaller than those that had existed 20 years earlier. This narrowing was linked to reductions in the incidence of sterility, as reflected in the sharp drop in childlessness among older women. In 1955, about 20 percent of women in the city aged 30-44, and more than 30 percent of those aged 45 and older, had been childless (Romaniuk 1967); by 1975 only three percent of women aged 30-44 and six percent of those aged 45-49 had not had a live birth (Shapiro 1996). Presumably, these reductions were a consequence of public health efforts of the 1950s and 1960s to combat venereal diseases (Bruaux et al. 1957; Sala-Diakanda 1980; Tabutin 1982).

---

[7]At that time, these groups represented approximately 86 percent of the population of women in Kinshasa aged 15-49. Foreigners (mostly Angolans) represented nearly 12 percent of the city's population (Houyoux and Kinavwuidi, 1977), and the small balance consisted of individuals from ethnic groups much more distant from Kinshasa.

[8]The contrast between this result and the difference in general fertility rates reported in Table 1 reflects two factors: the different nature of the measures of fertility being used, and age differences among the three groups. With respect to the first factor, the general fertility rates refer only to the period from 1970-74, while children ever born measures fertility behaviour over a longer time period. As shown in Table 1, in the mid-1950s fertility of Bakongo women was high relative to that of other ethnic groups. This higher past fertility is reflected in the numbers of children ever born (among older women), while not influencing the general fertility rate. Age differences are also a factor here. More specifically, the highest age-specific fertility rates for Kinshasa women in the early 1970s were for ages 20-34, and while 56 percent of the Kwilu-Kwango group were in this range the corresponding figures for Bakongo North and South women were 51 and 49 percent, respectively. Hence, the Kwilu-Kwango women had an age distribution more conducive to producing births (given their total number), and this is reflected in the general fertility rates but not in the regression equation because the latter controls for age.

Equation 2 in Table 2 adds controls for educational attainment. These controls reveal a pattern of differences by schooling that we have reported elsewhere (Shapiro 1996; Shapiro and Tambashe 1997a), with the highest fertility being that of women with primary schooling and an inverse association between education and fertility evident from the primary level on up. The higher fertility of women with primary schooling has been attributed to reduction in the periods of postpartum abstinence and breastfeeding associated with acquisition of primary schooling (Lesthaeghe 1989; Romaniuk 1980). This pattern has been observed in a number of other countries in sub-Saharan Africa (United Nations 1986; Muhuri et al. 1994). Compared to the differences by ethnic group, those by level of educational attainment are rather substantial, particularly those beginning with the group with 3-4 years of schooling.[9]

Once schooling is taken into account, there are modest changes in the coefficients for the different ethnic groups. The relatively high fertility of Luba women is more pronounced, Bakongo women now have slightly higher fertility than those from Kwilu-Kwango, and the fertility differentials between the Mongo and Ubangi groups and the Kwilu-Kwango group have diminished a bit.

The latter two equations in Table 2 are comparable to the first two, but restricted to married women. Ethnic group differences in fertility among married women are not the same as among all women. Most notably, among married women those from Kwilu-Kwango had the lowest numbers of children ever born, the differential for Luba women has become especially large, and married Bakongo women have clearly higher fertility than their Kwilu-Kwango counterparts. These results suggest that at least part of the observed overall (gross) ethnic differences in fertility reflects differences across ethnic groups in the incidence of marriage -- i.e., in the percentage of women who are married at various ages.[10]

Controlling for education among married women has very little impact on the coefficients of the ethnic group variables. However, the estimated fertility differences by education group, particularly beyond the primary level, are clearly smaller among married women than among all women. This suggests that a key aspect of schooling in influencing fertility is in delaying marriage (cf., Tambashe and Shapiro 1996; Shapiro and Tambashe 1997a). At the same time, substantial fertility differences by education exist among married women. Despite the fact that

---

[9]Both for 1975 and 1990, we have also estimated equations controlling for additional variables such as migration status and employment status. These additional control variables do not change the basic results of our paper, and they have not been reported here.

[10]Indeed, examination of the proportions married by age and ethnic group reveals distinct differences across the groups, with Kwilu-Kwango women generally having the highest proportions married while Mongo and Ubangi women tended to have the lowest proportions married. The greater likelihood of Kwilu-Kwango women being married thus is an important factor contributing to their relatively high overall fertility level, and the lower proportions married of Mongo and Ubangi women in part help explain their low overall fertility.

among these women the differences by education are smaller and those by ethnic group are larger as compared to the corresponding differences among all women, it is still the case among married women that the fertility differentials by educational attainment for women in the three highest groups are quite substantial relative to differentials by ethnic group, apart from that for Luba women.

Ethnic Fertility Differentials in 1990

General fertility rates for the period from 1985-89, calculated from our 1990 survey data, are shown in the third column of data in Table 1. These rates show a distinct decline overall for the six broad ethnic groups since the early 1970s, on the order of 17 percent. Each individual group experienced a decline, with the drop being relatively large for Bakongo North women (28 percent) and comparatively small for Luba women (10 percent). The pattern of differences by ethnic group is similar to that observed in the 1975 data, with Luba and Kwilu-Kwango women having the highest fertility and rates for the other four groups being markedly lower and fairly similar to one another.[11]

Analysis of the 1990 data parallel to that in Table 2 for 1975 is found in the equations in Table 3. Controlling only for age and ethnicity in the sample of all women aged 15-49 (equation 1), there are statistically significant differences by ethnic group in the number of children ever born for all but Luba women. Consistent with the general fertility rates in Table 1, Luba and Kwilu-Kwango women clearly have higher fertility than those from the other four groups. In comparing this equation with its counterpart in Table 2, a notable difference is the emergence of substantial significant negative coefficients for both groups of Bakongo women: they went from a fertility level comparable to that of Kwilu-Kwango women in 1975 to a distinctly lower relative level by 1990. In addition, the lower fertility of Mongo and Ubangi women is much more pronounced in 1990, with that for Ubangi women especially marked: the coefficient represents 18 percent of the mean number of children ever born among all six groups.

When educational attainment is taken into consideration (equation 2), the differences by ethnic group change dramatically. In particular, once schooling is taken into account, the ethnic group differences in fertility decline considerably in four of five cases. Specifically, each of the four statistically significant coefficients from equation 1 shrinks in absolute value, with those for Bakongo North and Mongo women becoming insignificant. As was the case in 1975, net of age and schooling, Luba women have the highest fertility, and Ubangi women have the lowest fertility. Bakongo South women went from having the second highest fertility net of age and schooling in 1975 to having the second lowest in 1990. The pattern of differences by educational

---

[11]It is of interest to note that for the Mongo, Kwilu-Kwango, and Luba groups the 1985-89 general fertility rates are very similar to those reported for 1955. For Ubangi women the general fertility rate is almost 20 percent higher, while for each of the Bakongo groups it is substantially lower.

attainment remains as it was in 1975, and indeed the magnitudes of the estimated coefficients are quite similar for the two years.

Equations 3 and 4 of Table 3 repeat the analyses of equations 1 and 2, but are restricted to married women. In contrast to the situation for 1975, in which this sample restriction sharply changed the magnitude and significance of the coefficients for all of the ethnic groups, there is not much impact in 1990 of limiting the sample to married women, either with or without controlling for schooling. The changes of note are that among married women as compared to all women, both the relatively low fertility of Ubangi women and the relatively high fertility of Luba women are more pronounced.

Education and Ethnicity

It is useful to explicitly consider changes over time in educational attainment, and the relation between education and ethnicity. In the mid-1950s, the vast majority of adult women in Kinshasa had no schooling at all: over 81 percent of women aged 15-54 had never been to school (calculated from Congo Belge 1957a, Table 21). However, data for successive cohorts of females show that schooling was becoming increasingly common, and among girls aged 10-14 almost 64 percent had been to school.[12] With respect to differences across ethnic groups, examination of literacy rates by gender for those aged ten and over for principal tribes (Congo Belge 1957a, Table 25) suggests that Bakongo North women had the highest literacy rate, at about 30 percent. Ubangi and Luba women were slightly above the average literacy rate for women of 25 percent, and Mongo and Bakongo South women were at the average. The outlier among the groups was Kwilu-Kwango, with an estimated group literacy rate of only 17 percent.

Women's access to education accelerated rapidly after independence in 1960, and by 1975 more than 70 percent of women aged 15-49 had at least some schooling. The top panel of Table 4 shows the schooling distributions by ethnic group as of 1975. While educational access had increased dramatically, the most notable impact was on the proportion of women who had been to primary school. Nearly 70 percent of the women had either no schooling at all or only primary schooling. Further, only about 13 percent of them had gone beyond two years of secondary school, reaching schooling levels associated with distinctly lower fertility. At the same time, the table shows that (consistent with the data from 1955) the Kwilu-Kwango women had the lowest levels of schooling, while the Luba women clearly had the highest educational attainment.

The bottom panel of Table 4 shows the educational distributions in 1990 of the six major ethnic groups. Overall, just over half of the women aged 15-49 had completed one to four years of

---

[12]The percentage having been to school fell as age increased, as follows: 36 percent of those aged 15-19, 22 percent of those aged 20-24, 16 percent of those 25-29, 13 percent of those 30-34, 10 percent of those 35-44, and 5 percent of those aged 45 and above (Congo Belge 1957a, Table 21).

secondary school. Almost a third of the women had not reached that level, while about a sixth had gone beyond it to either upper-level secondary school or to post-secondary schooling. Comparing these figures with those from the top panel of the table makes it clear that there was a substantial increase in women's educational attainment between 1975 and 1990. This is particularly so for the three highest schooling levels -- the ones associated with distinctly lower fertility -- which went from 13 percent of the total in 1975 to 44 percent of the total in 1990.

At the same time, differences by ethnic group are clearly evident. As was the case in 1975, Luba women stand out as the best-educated, being underrepresented at the low end of the distribution and overrepresented at the high end. Also as in 1975, Kwilu-Kwango women stand out as having the lowest schooling levels. Bakongo North women are relatively well-educated, and to progressively lesser degrees, so are the Ubangi and Mongo women. Bakongo South women are underrepresented at both the low and high ends of the schooling distribution.

These differences in educational attainment explain why, once schooling is controlled for in Table 3, the fertility differentials by ethnic group diminish in four cases and widen in the fifth. That is, a good deal of the lower fertility in equation 1 of Bakongo, Mongo, and Ubangi women as compared to Kwilu-Kwango women simply reflects the fact that these women are better educated than the Kwilu-Kwango women. Likewise, the insignificant difference for Luba women in equation 1 masks a significant ethnic difference net of education, since they have substantially more schooling than the Kwilu-Kwango women.

Ethnicity, Education, and the Proximate Determinants of Fertility

We turn now to an examination of differences by ethnic group and by educational attainment in the proximate determinants of fertility. The discussion here is based largely on multivariate analyses of the 1990 survey data on age at marriage, contraception, abortion, breastfeeding, and postpartum abstinence. These analyses, which have been reported in detail elsewhere (Shapiro and Tambashe 1997b), control for age, ethnic group, and educational attainment. We first summarize those results, highlighting the presence of significant differences by ethnic group and by schooling level. The multivariate results are then used to provide an overview of differences by ethnic and educational group in these proximate determinants.

Among women aged 20 and over at the time of the survey, the median age at first union was just over 18. There are statistically significant differences in entry into marriage (a first union) by ethnic group that are, for the most part, modest. Relative to women from Kwilu-Kwango, Ubangi women show a slight tendency toward earlier initiation of marriage, while Mongo, Luba, and Bakongo North women show modest delays in entry into marriage.[13] More substantial delays are

[13]Ubangi women have relatively high proportions married at ages 15-19 and 20-24, but comparatively low proportions married at higher ages. This reflects the fact that they have the highest incidence of marital disruption. The relatively high marital instability among Ubangi

evident among those in the Bakongo South group. The analytical approach to studying entry into marriage is an event-history approach (cf., Allison 1984), in which enrollment status rather than educational attainment is an explanatory variable. The analyses documented a strong effect of school enrollment in contributing to delays in entry to marriage. Thus, increased schooling can be expected to result in greater age at first marriage.

Contraceptive practice is dominated by use of traditional methods. Half of nonpregnant women who had ever been sexually active reported themselves as practicing contraception, but only 8 percent of them indicated use of a modern method. Among the different ethnic groups there are only modest differences in use of any method of contraception: other things equal, Luba women are slightly more likely to practice contraception while Bakongo South and Ubangi women are somewhat less likely to do so. Differences in use of modern contraceptives are more pronounced, with Ubangi women being significantly more likely to practice modern contraception and Bakongo women (and especially the North group) significantly less likely to do so. There are systematic differences in contraceptive practice by educational attainment. As schooling increases, there is a uniform tendency for increased use of any method of contraception, and there is also evidence of increased use of modern contraception as education increases from none up to the secondary level, and then again from the secondary to the university level.

Information on induced abortion was gathered as part of the pregnancy histories included in the survey. Fifteen percent of ever-pregnant women acknowledged having had an abortion, and we have argued elsewhere (Shapiro and Tambashe 1994) that while this figure may understate the actual incidence of abortion, we believe that our data are reasonably accurate and highly informative. Further, we have noted that, particularly in view of the low levels of use of modern contraception, abortion appears to be an important means of fertility control for many better-educated women in Kinshasa, especially those employed in the modern sector of the economy (Shapiro and Tambashe 1994). Among the different ethnic groups, the Mongo and Ubangi stand out as being especially likely to have had an abortion. With respect to educational attainment, there is an increased likelihood of abortion as education rises from none up through the upper-level secondary group, and the high level is maintained among university-educated women.

As is the case elsewhere in sub-Saharan Africa, prolonged breastfeeding prevails in Kinshasa, with a mean duration in excess of 17 months. Ubangi, Kwilu-Kwango, and Bakongo North women tend to have relatively longer breastfeeding durations, other things equal, while Bakongo South, Mongo, and especially Luba women have shorter breastfeeding durations. Educational attainment is generally inversely related to the duration of breastfeeding, except that women with no schooling have shorter durations than those with primary schooling. Especially short durations characterize the women with the two highest educational attainment levels.

---

women helps explain why they have low proportions married in general (cf., footnote 10) while at the same time showing a clear tendency to enter into marriage relatively early.

Postpartum abstinence lasts, on average, about 9 months in Kinshasa, and there are sharp differences in abstinence behaviour by ethnic group. Ubangi and Bakongo South women tend to observe relatively long durations of abstinence, while Mongo and especially Bakongo North women have relatively short abstinence durations. Higher levels of education are generally associated with shorter durations of abstinence, although women with 3-4 years of secondary schooling are an exception to this pattern.

Both ethnic group and educational attainment are thus significantly related to the various proximate determinants. An overview of the associations is provided in Table 5. The top panel of the table shows values of the proximate determinants for the different ethnic groups. These are predicted values based on the multivariate analyses. These predicted values, by holding constant other factors such as schooling and age, serve to isolate differences associated with ethnicity per se.

Age at first marriage occurs relatively late for Bakongo South women and relatively early for Ubangi women, as compared to the other ethnic groups. Differences in overall contraceptive prevalence are for the most part modest, with Ubangi women having relatively low prevalence and Luba women with high prevalence. With respect to modern contraception, Bakongo women stand out as having relatively low prevalence. Abortion is roughly twice as common among Mongo and Ubangi women as compared to the other ethnic groups. Luba women tend to have distinctly shorter breastfeeding durations, while postpartum abstinence is relatively brief among Bakongo North and Mongo women and relatively long among Bakongo South and Ubangi women.

The bottom panel of Table 5 shows values of the proximate determinants for the different educational attainment groups that parallel those for the ethnic groups.[14] In general, greater schooling tends to result in higher age at marriage, greater contraceptive use (overall and modern), increased incidence of abortion (especially at the highest education levels), and shorter durations of breastfeeding and postpartum abstinence. Further, the differences by educational attainment tend to be more substantial than the differences by ethnic group. This is particularly the case with respect to age at marriage, contraceptive use, and abortion.

Ethnic Fertility Differences and the Compensating Mechanisms of the Proximate Determinants

Here we provide a synthesis of the results of the preceding section concerning the behaviour of the different ethnic groups in an effort to ascertain the links between the proximate determinants and the observed differences in fertility. More specifically, for each of the groups other than the Kwilu-Kwango reference group we describe how that group's behaviours with respect to the

[14]For age at first marriage, we report actual median age for women over age 25 rather than a predicted value. The event-history approach used to analyze age at first marriage did not control for educational attainment but rather enrollment status, and hence does not readily lend itself to generating predicted values by level of educational attainment.

proximate determinants help to account for its relative level of fertility, controlling for age and education. Ubangi and Bakongo South women have significantly lower numbers of children ever born than those from the Kwilu-Kwango reference group, given age and schooling, while Luba women have sharply higher fertility.

The relatively low fertility of the Ubangi women occurs despite a slight tendency toward early entry into marriage. As noted earlier, this tendency is offset by low proportions married at higher ages, in large part reflecting a distinctly higher incidence of divorce. Somewhat greater use of modern contraception and longer durations of postpartum abstinence appear to contribute to the lower fertility of these women, and a much greater incidence of induced abortion undoubtedly contributes to the difference as well. The relatively low fertility of Bakongo South women exists despite comparatively short durations of breastfeeding and a relatively low use of modern contraception. For this group, there are longer durations of postpartum abstinence contributing to the low fertility, as well as a modestly higher incidence of abortion. Most notable, however, is the tendency of these women to marry latest among the six ethnic groups.

The fertility of Bakongo North women and that of Mongo women does not differ significantly from the fertility of women from Kwilu-Kwango, controlling for age and education. However, there are quite different paths leading to this absence of an overall difference. The Bakongo North women show delayed entry to marriage compared to the Kwilu-Kwango women, but this is largely offset by a distinctly lower prevalence of modern contraceptive use and shorter durations of postpartum abstinence. The Mongo women exhibit slightly shorter breastfeeding and abstinence durations, but this is offset by a substantially higher incidence of abortion.

The high-fertility group is the Luba women.[15] Compared to the Kwilu-Kwango women, they have slightly higher overall contraceptive prevalence and a modestly greater incidence of abortion. Offsetting the fertility-reducing effects of these behaviours are significantly shorter durations of breastfeeding, and low divorce rates which translate into the highest proportions married from age 30 on for any ethnic group.

Conclusions

This paper has shown that there are significant differences in fertility by ethnic group among women in Kinshasa, either net of age alone or net of age and schooling. However, these

---

[15]It is beyond the scope of this paper to attempt to identify the underlying reasons for this difference. However, it is worth noting that the greater numbers of children ever born to Luba women are consistent with our data concerning desired fertility. Simple tabulation of desired fertility by ethnic group shows the Luba women to have the highest desired fertility, by 0.2 children compared to the second-highest group, the Kwilu-Kwango women. Further, regression analysis of desired fertility, controlling for age and education, reveals a statistically significant coefficient for Luba women (as compared to Kwilu-Kwango women), with a value of +0.3.

differences appear to be relatively small compared to the situation that prevailed in the 1950s. When schooling is not taken into account, the ethnic group differences in the regression analyses for 1990 are for the most part larger than those that prevailed in 1975. However, controlling for schooling generally reduces these differences by ethnic group, and net of age and schooling ethnic group differences are modest, apart from the consistently high fertility of Luba women.

At the same time, associated with the access of women to schooling there have emerged significant and substantial fertility differentials by educational attainment, particularly at the middle and higher secondary and university levels. Indeed, these differences were already evident in 1975, and their magnitudes for all women in 1975 were quite similar to those estimated for 1990. However, while the educational differentials were present in 1975, the proportions of women in the higher education categories were small. The large education differentials thus had little impact on overall fertility. By 1990, in contrast, many more women had the higher levels of schooling associated with distinctly lower fertility, and this appears to be the major factor contributing to the decline in fertility between the early 1970s and the late 1980s (Shapiro 1996).

Hence, while ethnicity remains as a significant influence on fertility behaviour, educational attainment has become a key factor associated with even larger fertility differences in Kinshasa. Indeed, as suggested both in Cohen's (1993) overview of fertility levels, differentials, and trends and in Tabutin's (1997) recent overview of demographic transitions in sub-Saharan Africa, as well as in Muhuri et al. (1994), the distinctly lower fertility of relatively well-educated women is a phenomenon increasingly evident in a number of African countries. Such women appear to be in the forefront of the emerging African fertility transition, and from this perspective the supplanting of ethnicity by education as a key factor associated with sizable fertility differences that we have documented here for Kinshasa most likely reflects what is occurring elsewhere in sub-Saharan Africa as well.

References

Allison, Paul D. (1984) *Event History Analysis: Regression for Longitudinal Event Data*. Sage Publications, Beverly Hills, CA.

Bruaux, P., Cerf, J., and Lebrun, A. (1957) 'La lutte contre les affections vénérienne a Léopoldville'. *Annales de la Société Belge de Médicine Tropicale*, 37, 801-13.

Cohen, Barney. (1993) 'Fertility levels, differentials, and trends', in Linda G. Martin et al. (eds.), *Demographic Change in Sub-Saharan Africa*. National Academy Press, Washington, DC, pp. 8-67.

Congo Belge, Service des Affaires Indigènes et de la Main-d'Oeuvre (AIMO). (1957a) *Enquêtes démographiques. Cité Léopoldville*. AIMO, Léopoldville.

Congo Belge, Service des Affaires Indigènes et de la Main-d'Oeuvre (AIMO). (1957b) *Enquêtes démographiques. Territoire Suburbain de Léopoldville*. AIMO, Léopoldville.

Gouvernement Central de la République du Congo, Ministère du Plan et de la Coordination Economique. (1961) *Tableau Général de la démographie congolaise. Enquête démographique par sondage 1955-1957. Analyse générale des résultats statistiques*. Ministère du Plan et de la Coordination Economique, Léopoldville.

Houyoux, Joseph and Niwembo, Kinavwuidi. (1977) *Etude démographique de Kinshasa*. Reprinted in 1986 as *Kinshasa 1975*. Bureau d'Etudes, d'Aménagement et d'Urbanisme, Kinshasa and ICHEC, Brussels.

Lesthaeghe, Ron J. (1989) 'Introduction' and 'Production and reproduction in sub-Saharan Africa: An overview of organizing principles', in Ron J. Lesthaeghe (ed.), *Reproduction and Social Organization in Sub-Saharan Africa*. University of California Press, Berkeley, CA, pp. 1-59.

Muhuri, Pradip K., Blanc, Ann K., and Rutstein, Shea O. (1994) *Socioeconomic Differentials in Fertility*. Demographic and Health Surveys Comparative Studies No. 13. Macro International, Inc., Calverton, MD.

Romaniuk, Anatole. (1967) *La fécondité des populations congolaises*. Mouton, Paris.

Romaniuk, Anatole. (1968) 'The demography of the Democratic Republic of the Congo', in William Brass et al., *The Demography of Tropical Africa*. Princeton University Press, Princeton, NJ, pp. 241-341.

Romaniuk, Anatole. (1980) 'Increase in natural fertility during the early stages of modernization: Evidence from an African case study, Zaire'. *Population Studies*, 34, 295-310.

Sala-Diakanda, Mpembele. (1980) *Approche ethnique des phénomènes démographiques: Le cas du Zaïre*. Cabay Libraire-Editeur SA, Louvain-la-Neuve, Belgium.

Shapiro, David. (1996) 'Fertility decline in Kinshasa'. *Population Studies*, 50, 89-103.

Shapiro, David and Tambashe, B. Oleko. (1994) 'The impact of women's employment and education on contraceptive use and abortion in Kinshasa, Zaire'. *Studies in Family Planning*, 25, 96-110.

Shapiro, David and Tambashe, B. Oleko. (1997a) 'Education, employment, and fertility in Kinshasa and prospects for changes in reproductive behavior'. *Population Research and Policy Review*, 16, 259-87.

Shapiro, David and Tambashe, B. Oleko. (1997b) 'Ethnicity, education, and fertility in Kinshasa, Congo'. Pennsylvania State University Department of Economics Working Paper, University Park, PA.

Tabutin, Dominique. (1982) 'Evolution régionale de la fécondité dans l'Ouest du Zaïre'. *Population*, 37, 29-50.

Tabutin, Dominique. (1997) 'Les transitions démographiques en Afrique sub-Saharienne: Spécificités, changements... et incertitudes', in International Union for the Scientific Study of Population, *International Population Conference, Beijing 1997, Vol. 1*, International Union for the Scientific Study of Population, Liège, Belgium, pp. 219-47.

Tambashe, B. Oleko and Shapiro, David. (1991) 'Employment, education, and fertility behavior: Evidence from Kinshasa'. Final report to the Rockefeller Foundation. Département de Démographie, Université de Kinshasa.

Tambashe, B. Oleko and Shapiro, David. (1996) 'Family background and early life course transitions in Kinshasa'. *Journal of Marriage and the Family*, 58, 1029-37.

United Nations. (1986) *Education and Fertility: Selected Findings from the World Fertility Survey Data*. Population Division, United Nations, New York.

Table 1. General fertility rates by broad ethnic group, 1955, 1970-74, and 1985-89

Group	1955[a]	1970-74[b]	1985-89[c]
Bakongo North	328	238	172
Bakongo South	263	229	178
Kwilu-Kwango	227	263	219
Mongo	182	226	182
Ubangi	145	220	172
Luba+	232	267	241
All six groups	242	243	201

[a] Births per 1000 women aged 15-45. Calculated from data on principal tribes in Congo Belge, 1957a, Table 18. The GFR for the city as a whole was 240.

[b] Births per 1000 women aged 15-44. Calculated from the 1975 survey data (provided courtesy of the Belgian Archives for the Social Sciences), based on reported numbers of births for the five years preceding the survey.

[c] Births per 1000 women aged 15-44. Calculated from the 1990 survey data, based on reported numbers of births for the five years preceding the survey.

Table 2. Regression analyses of children ever born, 1975 (ordinary least squares regression coefficients)

Variable		All women (1)	All women (2)	Married women (3)	Married women (4)
Age at survey	Age	.5870**	.6098**	.6588**	.6682**
	Age squared	-.0057**	-.0061**	-.0067**	-.0068**
Ethnic group	Bakongo North	.046	.098**	.278**	.277**
	Bakongo South	.000	.054*	.195**	.203**
	Kwilu-Kwango	---	---	---	---
	Mongo	-.114**	-.071+	.124*	.108+
	Ubangi	-.167**	-.130**	.075	.074
	Luba+	.198**	.276**	.587**	.589**
Schooling level	None	---	-.339**	---	-.313**
	Primary	---	---	---	---
	Secondary 1-2	---	-.279**	---	-.136**
	Secondary 3-4	---	-.746**	---	-.435**
	Secondary 5-6	---	-1.415**	---	-.964**
	University	---	-2.086**	---	-1.713**
Parameters	Constant	-8.215	-8.287	-9.272	-9.269
	R^2/adjusted R^2	.617/.617	.629/.629	.498/.498	.503/.503
	F-ratio	6909.3	4240.4	2615.3	1558.9

** Significant at the .01 level.
* Significant at the .05 level.
+ Significant at the .10 level.

Mean number of children ever born equals 2.89 for all women and 4.15 for married women. Sample sizes are 30,034 and 18,485, respectively.

Table 3. Regression analyses of children ever born, 1990 (weighted ordinary least squares regression coefficients)

Variable		All Women (1)	All Women (2)	Married Women (3)	Married Women (4)
Age at survey	Age	.1968**	.3027**	.2856**	.3604**
	Age squared	.0018**	-.0002	.0003	-.0012+
Ethnic group	Bakongo North	-.413**	-.147	-.438*	-.138
	Bakongo South	-.340**	-.195*	-.358**	-.160
	Kwilu-Kwango	---	---	---	---
	Mongo	-.292*	-.099	-.328+	-.089
	Ubangi	-.460**	-.245*	-.550**	-.301+
	Luba+	.077	.427**	.257+	.646**
Schooling level	None	---	-.281*	---	-.218
	Primary	---	---	---	---
	Secondary 1-2	---	-.295**	---	-.352**
	Secondary 3-4	---	-.795**	---	-.835**
	Secondary 5-6	---	-1.538**	---	-1.603**
	University	---	-2.231**	---	-2.424**
	Other schooling	---	-1.023**	---	-.812+
Parameters	Constant	-3.598	-4.454	-4.711	-5.105
	R^2/adjusted R^2	.667/.666	.710/.708	.611/.609	.660/.657
	F-ratio	611.9	401.0	349.8	231.6

** Significant at the .01 level.
* Significant at the .05 level.
+ Significant at the .10 level.

Mean number of children ever born equals 2.53 for all women and 3.26 for married women. Sample sizes are 2142 and 1566, respectively.

Table 4. Educational attainment of the different ethnic groups, 1975 and 1990 (percentage distributions)

Ethnic group	No schooling	Primary	Secondary 1-2	Secondary 3-4	Secondary 5-6	University	Total
			A. Educational attainment, 1975				
Bakongo North	26	39	20	12	3	0.4	100
Bakongo South	27	38	20	12	3	0.3	100
Kwilu-Kwango	38	42	12	6	2	0.2	100
Mongo	25	42	19	10	3	0.7	100
Ubangi	25	42	19	11	3	0.5	100
Luba+	15	42	22	15	5	0.9	100
Total	28	41	18	10	3	0.4	100
			B. Educational attainment, 1990				
Bakongo North	6	23	17	28	17	6	100
Bakongo South	5	17	30	33	10	3	100
Kwilu-Kwango	9	35	22	22	9	3	100
Mongo	8	22	24	26	10	9	100
Ubangi	6	19	24	31	14	6	100
Luba+	1	16	22	33	19	8	100
Total	7	25	24	27	12	5	100

Note: Totals for 1990 include a small number of women (one percent of the overall total) who had taken apprenticeship or vocational courses.

Universe: Women aged 15-49.

Table 5. Proximate Determinants, by Ethnic Group and by Educational Attainment

Proximate determinant	A. Ethnic group					
	Bakongo North	Bakongo South	Kwilu-Kwango	Mongo	Ubangi	Luba
median age at first marriage[a]	18.8	19.4	18.6	18.8	18.3	18.8
percentage using contraception[b]						
any method	50	49	51	51	47	54
modern method	8	10	13	14	15	14
percentage having had an abortion[c]	13	13	12	26	27	14
mean duration of breastfeeding[d]	17	16	17	16	17	14
mean duration of postpartum abstinence[d]	6	10	8	7	10	8

[a] Predicted values, assuming enrollment in school during the previous year.
[b] Predicted values, assuming 1-2 years of secondary education and age=30; based on analyses of ever-sexually-active women not pregnant at time of survey.
[c] Predicted values, assuming 1-2 years of secondary education and age=30; based on analyses of ever-pregnant women.
[d] Predicted values, using prevalence-incidence method and assuming 1-2 years of secondary education, based on analyses of births occurring in the 36 months preceding the survey.

Proximate determinant	B. Educational attainment					
	None	Primary	Sec 1-2	Sec 3-4	Sec 5-6	Univ.
median age at first marriage[a]	16.9	16.9	17.6	18.8	20.9	23.6
percentage using contraception[b]						
any method	35	43	51	57	58	62
modern method	4	8	13	12	12	20
percentage having had an abortion[c]	4	8	12	14	25	25
mean duration of breastfeeding[d]	17	18	17	17	15	14
mean duration of postpartum abstinence[d]	10	9	8	10	6	6

[a] For women aged 25 and over at time of survey.
[b] Predicted values, assuming Kwilu-Kwango ethnic group and age=30; based on analyses of ever-sexually-active women not pregnant at time of survey.
[c] Predicted values, assuming Kwilu-Kwango ethnic group and age=30; based on analyses of ever-pregnant women.
[d] Predicted values, using prevalence-incidence method and assuming Kwilu-Kwango ethnic group, based on analyses of births occurring in the 36 months preceding the survey.

Appendix: Ethnic Groups in Kinshasa

We have elsewhere described Kinshasa as "an ethnic mosaic" (Shapiro and Tambashe 1997a), and this appendix provides some documentation to this effect. The 1975 survey used as one of the data sets in this paper, which covered ten percent of Kinshasa's households and more than 163 thousand persons, identified individuals from well over 300 distinct tribes. Our own 1990 survey of women aged 13-49, with a total sample size of only 2450, identified women from over 200 different tribes. In some cases, these tribes are part of well-defined broad ethnic groups, such as the Bakongo or Mongo. However, in many other cases there is considerable heterogeneity across tribes.

In order to provide quantitative analyses by ethnic group, we needed to aggregate the large number of small groups into a reasonable number of categories. To this end, we relied largely on the work of Jan Vansina (1966).[1] Figure A shows the 15 'cultural regions' of the Congo proposed by Vansina.

There are relatively few individuals in Kinshasa from the easternmost part of the country, and they have been excluded from the analyses in this paper. Conversely, since Bakongo are well-represented in Kinshasa and can be readily distinguished according to whether they are from north or south of the Congo River[2], we have subdivided Vansina's region 8 (Kongo), corresponding to Bas-Congo province, into two.

Our classification scheme, then, resulted in six broad ethnic groups. In addition to the two Bakongo subgroups that correspond to Vansina's region 8, we have a large group that comprises Vansina's regions 9 (Bas Kasai) and 10 (Entre Kwango-Kasai). Because the principal tribes in this heterogeneous group are from the Kwilu and Kwango districts of Bandundu province, we refer to this group as the Kwilu-Kwango group. Note, then, that this designation is in fact a geographic one and not an ethnic category. These first three groups accounted for 46 percent of the city's population of reproductive-age women in 1955, more than 60 percent in 1975, and almost 70 percent in 1990.

The remaining three groups represented a little under a fifth of the population of reproductive-age women in 1955, and about a quarter in both 1975 and 1990. The fourth group is the Mongo ethnic group, corresponding to Vansina's very large region 5 (Cuvette Centrale). Most of the Mongo in Kinshasa are from the southern part of Equateur province, with some also from northern Kasai Oriental province (the Tetela) and from northern Bandundu province.

---

[1]Vansina's work was the basis for the coding scheme for tribes that was used in the 1975 survey and in our 1990 survey.

[2]Those from south of the river are for the most part originally from closer to Kinshasa, while those from north of the river (including individuals from the Bas-Fleuve district of Bas-Congo province) typically originated farther from the city.

Our fifth group comprises Vansina's regions 2 (Ubangi) and 4 (Itimbiri-Ngiri). The principal tribes in this group are primarily from the northern part of Equateur province, but just over a fifth of the group comes from Haut-Congo province. We call this group the Ubangi group.

The final group is the Luba and related category. Codes for this group correspond to Vansina's regions 11 (Kasai-Katanga) and 13 (Tanganyika-Haut Katanga). However, the principal tribes from this group in Kinshasa are largely from region 11, originating in the provinces of Kasai Oriental and Kasai Occidental.

Table A shows the principal tribes for each of these six broad ethnic groups in 1975 and 1990 (principal tribes are defined operationally as those with at least 10 percent of the population of the broad group in at least one of the two years). This criterion yields 20 tribes, which combined represented approximately 63 percent of the city's population of reproductive-age women in 1975 and more than 70 percent of the estimated corresponding population in 1990.

For the most part, there is a fair degree of stability in the composition of each of the broad groups between the two years, with the notable exception of the huge increase in the proportion of the Luba and related group identifying themselves as Luba. We believe that increase reflects a greater tendency as of 1990 for individuals in Kinshasa to identify with the broader group rather than with a small component tribe.

Table B shows the composition of the city's population of reproductive-age women, according to these broad ethnic groups, for 1955, 1975, and 1990. Clearly, their relative share of the population has increased over time (largely at the expense of non-Congolese Africans, most notably Angolans). Further, the share of the Kwilu-Kwango group has increased sharply over time, while the relative size of the Bakongo South group has diminished somewhat.

Figure A. Cultural Regions of the Congo, by Jan Vansina

Note: One of Vansina's 15 groups, pigmy hunters, is not shown on the map because of its geographic dispersion.

BEST COPY AVAILABLE

Table A. Principal tribes of the major ethnic groups in Kinshasa, 1975 and 1990 (percentages indicate tribe's share of broader group)

Ethnic group	1975	1990
Bakongo North (North of the Congo River)		
Manyanga	57.1	56.8
Yombe	35.2	37.0
Bakongo South (South of the Congo River)		
BesiNgombe	14.3	13.2
Mbata	10.7	8.2
Ndibu	20.5	24.2
Ntandu	37.6	38.4
Kwilu-Kwango (Bas Kasai, Entre Kwango-Kasai)		
Mbala	17.6	12.2
Suku	11.1	16.0
Yaka	20.7	34.5
Yansi	16.2	12.7
Mongo (Cuvette Centrale)		
Mongo	52.9	50.5
Tetela	18.2	23.2
Ubangi (Ubangi, Itimbiri-Ngiri)		
Lokele	6.4	12.3
Mbuja	26.2	30.4
Ngbandi	10.5	12.0
Ngombe	21.1	16.2
Luba and related (Kasai-Katanga, Tanganyika-Haut Katanga)		
Bakwa Kalondji	11.4	3.3
Lulua	14.9	4.0
Luba	15.5	68.2
Songye	11.0	3.4

Table B. Composition of the female population of reproductive age, by ethnic group, Kinshasa, 1955, 1975, and 1990 (percentage distributions)

Ethnic group	1955	1975	1990
Bakongo North	7.1	10.0	7.6
Bakongo South	30.5	25.9	22.1
Kwilu-Kwango	8.4	25.9	37.0
Mongo	5.6	7.5	7.3
Ubangi	7.2	7.7	7.8
Luba and related	5.1	9.3	11.1
Subtotal	63.9	86.3	92.9
Other groups	36.1	13.7	7.1
Grand total	100.0	100.0	100.0

Note: Data on women of reproductive age in 1955 by ethnic group were limited to 25 principal tribes in the city. Hence, the data slightly understate the share of each of the six groups in the city's population, because minor tribes in each group are not included in the figures for the group (and are included instead in the "Other groups" category). Fully 25 percent of the city's total population of women of reproductive age was from either Angola or French Equatorial Africa (mostly Angola).

Sources: 1955: Calculated from Congo Belge 1957a, Table 18.
1975 and 1990: Calculated from survey data.